

CLAIMS

1. Valvegear for an internal combustion engine of reciprocating piston type comprising a valve member which cooperates with a valve seat and is biased into the closed position by a spring, the valve member including a valve stem in contact with a pivotally mounted rocker arm, which carries a first roller in rolling contact with a first engagement surface on a rocking lever, which is mounted to pivot about a rocking shaft, the rocking lever having a second engagement surface in rolling contact with a second roller carried by an intermediate lever, the intermediate lever carrying a third roller in rolling engagement with a cam carried by a camshaft, the second engagement surface being of generally arcuate section, the distance between the second engagement surface and axis of the camshaft increasing in one direction of the arcuate length of the second engagement surface over at least part of its length, whereby a gap is defined between the second engagement surface and the cam in which the third roller is received, the intermediate lever being connected to actuating means arranged to move it selectively in a direction transversely of the width of the gap.
2. Valvegear as claimed in Claim 1 in which the second engagement surface is of part-circular section, the centre of which is offset from the axis of the camshaft, when the intermediate lever is not in engagement with the lobe of the cam.
3. Valvegear as claimed in Claim 1 or 2 in which the second and third rollers are one and the same.

4. Valvegear as claimed in any one of the preceding claims in which the rocking lever is elongate and affords the first engagement surface at one end and is mounted on the rocking shaft at a position adjacent the other end and the 5 second engagement surface constitutes part of one of its side surfaces.

10 5. Valvegear as claimed in any one of Claims 1 to 3 in which the rocking lever is elongate and affords the first engagement surface at one end and is mounted on the rocking lever at a point intermediate its two ends and the second engagement surface constitutes part of one of its side surfaces situated beyond the rocking shaft in the direction of its length away from the first engagement surface.

15 6. Valvegear for an internal combustion engine of reciprocating piston type comprising a valve member which cooperates with a valve seat and is biased into the closed position by a spring, the valve member including a valve stem in contact with a pivotally mounted rocker arm, which carries a first roller in rolling contact with a first engagement surface on a rocking lever, which is mounted to pivot about a rocking shaft, the rocking lever carrying a second 20 roller in rolling contact with a second engagement surface afforded by an intermediate lever, the intermediate lever carrying a third roller in rolling engagement with a cam carried by a camshaft, the second engagement surface being of generally arcuate section, the distance between the second engagement surface and the axis of the camshaft increasing in one direction of the arcuate 25 length of the second engagement surface over at least part of its length, whereby a gap is defined between the second roller and the cam, in which the intermediate lever is received, the intermediate lever being connected to

actuating means arranged to move it selectively in a direction transversely of the width of the gap.

7. Valvegear as claimed in Claim 1 or 6 in which there are two second 5 rollers in engagement with respective rocking levers associated with respective valve members.

8. Valvegear as claimed in any one of the preceding claims in which the intermediate lever is pivotally connected to one end of a control lever, the other 10 end of which is connected to a control shaft which is connected to the actuating means which is arranged to move the control lever pivotally.

9. Valvegear as claimed in any one of Claims 1 to 7 in which the intermediate lever is connected to a control shaft to be pivotable about a first 15 axis, the control shaft being connected to the actuating means to be rotated thereby about a second axis which is offset with respect to the first axis.

10. Valvegear as claimed in any one of the preceding claims in which the said distance increases progressively from one end of the arcuate length of the 20 second engagement surface to the other end.

11. Valvegear as claimed in any one of Claims 1 to 9 in which the said distance decreases progressively from one end of the arcuate length of the second engagement surface and then increases progressively towards the other 25 end.